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LOGINID:SSPTAJDA1614

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JUN 06	EPFULL enhanced with 260,000 English abstracts
NEWS	3	JUN 06	KOREAPAT updated with 41,000 documents
NEWS	4	JUN 13	USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications
NEWS	5	JUN 19	CAS REGISTRY includes selected substances from web-based collections
NEWS	6	JUN 25	CA/CAPLUS and USPAT databases updated with IPC reclassification data
NEWS	7	JUN 30	AEROSPACE enhanced with more than 1 million U.S. patent records
NEWS	8	JUN 30	EMBASE, EMBAL, and LEMBASE updated with additional options to display authors and affiliated organizations
NEWS	9	JUN 30	STN on the Web enhanced with new STN AnaVist Assistant and BLAST plug-in
NEWS	10	JUN 30	STN AnaVist enhanced with database content from EPFULL
NEWS	11	JUL 28	CA/CAPLUS patent coverage enhanced
NEWS	12	JUL 28	EPFULL enhanced with additional legal status information from the EPOline Register
NEWS	13	JUL 28	IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS	14	JUL 28	STN Viewer performance improved
NEWS	15	AUG 01	INPADOCDB and INPAFAMDB coverage enhanced
NEWS	16	AUG 13	CA/CAPLUS enhanced with printed Chemical Abstracts page images from 1967-1998
NEWS	17	AUG 15	CAOLD to be discontinued on December 31, 2008
NEWS	18	AUG 15	CAPLUS currency for Korean patents enhanced
NEWS	19	AUG 27	CAS definition of basic patents expanded to ensure comprehensive access to substance and sequence information
NEWS	20	SEP 18	Support for STN Express, Versions 6.01 and earlier, to be discontinued
NEWS	21	SEP 25	CA/CAPLUS current-awareness alert options enhanced to accommodate supplemental CAS indexing of exemplified prophetic substances
NEWS	22	SEP 26	WPIDS, WPINDEX, and WPIX coverage of Chinese and Korean patents enhanced
NEWS	23	SEP 29	IFICLS enhanced with new super search field
NEWS	24	SEP 29	EMBASE and EMBAL enhanced with new search and display fields
NEWS	25	SEP 30	CAS patent coverage enhanced to include exemplified prophetic substances identified in new Japanese-language patents
NEWS	26	OCT 07	EPFULL enhanced with full implementation of EPC2000
NEWS	27	OCT 07	Multiple databases enhanced for more flexible patent number searching

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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\*\*\*\*\* STN Columbus \*\*\*\*\*

FILE 'HOME' ENTERED AT 11:26:09 ON 14 OCT 2008

=> file registry		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 11:26:41 ON 14 OCT 2008  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 12 OCT 2008 HIGHEST RN 1060442-20-7  
DICTIONARY FILE UPDATES: 12 OCT 2008 HIGHEST RN 1060442-20-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

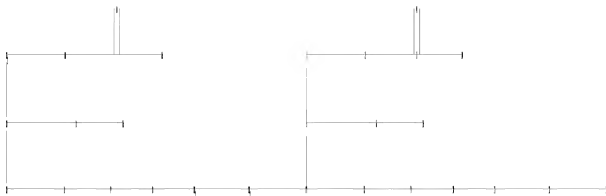
TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>  
Uploading C:\Program Files\Stnexp\Queries\10783927\_specie\_chain.str



```

chain nodes :
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15
chain bonds :
1-2  1-5  2-3  3-4  3-14  5-6  5-7  6-15  7-8  8-9  9-10  10-11  11-12  12-13
exact/norm bonds :
2-3  3-4  3-14  5-6  6-15  7-8  8-9  9-10
exact bonds :
1-2  1-5  5-7  10-11  11-12  12-13

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Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS

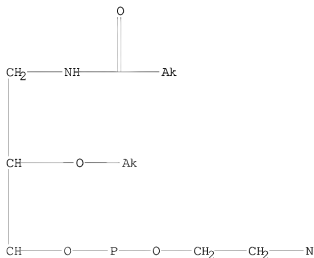
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L1        STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1                STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 11:27:43 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 249 TO ITERATE

100.0% PROCESSED 249 ITERATIONS

7 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 4034 TO 5926

PROJECTED ANSWERS: 7 TO 298

L2 7 SEA SSS SAM L1

=> d 12 1-7

L2 ANSWER 1 OF 7 REGISTRY COPYRIGHT 2008 ACS on STN

RN 443883-13-4 REGISTRY

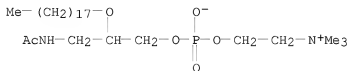
ED Entered STN: 14 Aug 2002

CN 3,5-Dioxa-9-aza-4-phosphaundecan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octadecyloxy)-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)

MF C28 H59 N2 O6 P

SR CA

LC STN Files: CA, CAPLUS, CASREACT



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 2 OF 7 REGISTRY COPYRIGHT 2008 ACS on STN

RN 210418-12-5 REGISTRY

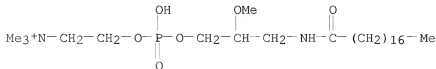
ED Entered STN: 26 Aug 1998

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, chloride, 4-oxide (9CI) (CA  
INDEX NAME)

MF C27 H58 N2 O6 P . Cl

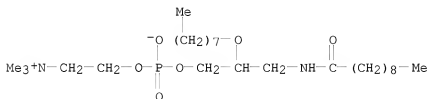
SR CAS Client Services

CRN (742681-49-8)



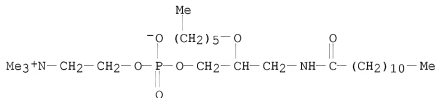
● Cl<sup>-</sup>

L2 ANSWER 3 OF 7 REGISTRY COPYRIGHT 2008 ACS on STN  
 RN 207298-97-3 REGISTRY  
 ED Entered STN: 17 Jun 1998  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)  
 MF C26 H55 N2 O6 P  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER



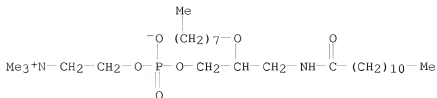
2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 4 OF 7 REGISTRY COPYRIGHT 2008 ACS on STN  
 RN 207298-94-0 REGISTRY  
 ED Entered STN: 17 Jun 1998  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)  
 MF C26 H55 N2 O6 P  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER



2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 5 OF 7 REGISTRY COPYRIGHT 2008 ACS on STN  
 RN 207298-93-9 REGISTRY  
 ED Entered STN: 17 Jun 1998  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)  
 MF C28 H59 N2 O6 P  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL



4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 6 OF 7 REGISTRY COPYRIGHT 2008 ACS on STN

RN 74471-34-4 REGISTRY

ED Entered STN: 16 Nov 1984

CN 9,12-Octadecadienoic acid (9Z,12Z)-,  
1-[[[(2-aminoethoxy)hydroxyphosphinyl]oxy]methyl]-2-[(1-oxodecyl)amino]ethyl ester (CA INDEX NAME)

OTHER CA INDEX NAMES:

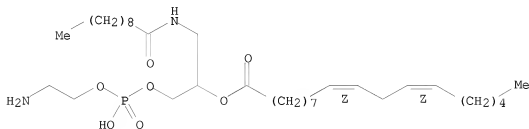
CN 9,12-Octadecadienoic acid (Z,Z)-, 1-[[[(2-aminoethoxy)hydroxyphosphinyl]oxy]methyl]-2-[(1-oxodecyl)amino]ethyl ester

FS STEREOSEARCH

MF C33 H63 N2 O7 P

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Double bond geometry as shown.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 7 OF 7 REGISTRY COPYRIGHT 2008 ACS on STN

RN 74471-25-3 REGISTRY

ED Entered STN: 16 Nov 1984

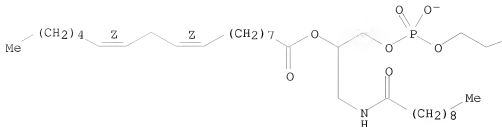
CN 3,5,8-Trioxa-4-phosphahexacos-17,20-dien-1-aminium,  
4-hydroxy-N,N-trimethyl-9-oxo-7-[[[(1-oxodecyl)amino]methyl]-, inner  
salt, 4-oxide, (Z,Z)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C36 H69 N2 O7 P

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Double bond geometry as shown.



— N<sup>+</sup>Me<sub>3</sub>

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s l2 full  
FULL SEARCH INITIATED 11:28:02 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 4927 TO ITERATE

100.0% PROCESSED 4927 ITERATIONS 70 ANSWERS  
SEARCH TIME: 00.00.01

L3 70 SEA SSS FUL L1

=> file medline caplus wpids uspatfull  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
193.28	193.49

FULL ESTIMATED COST

FILE 'MEDLINE' ENTERED AT 11:28:13 ON 14 OCT 2008

FILE 'CAPLUS' ENTERED AT 11:28:13 ON 14 OCT 2008  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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FILE 'WPIDS' ENTERED AT 11:28:13 ON 14 OCT 2008  
COPYRIGHT (C) 2008 THOMSON REUTERS

FILE 'USPATFULL' ENTERED AT 11:28:13 ON 14 OCT 2008  
CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

=> s l3  
SAMPLE SEARCH INITIATED 11:28:17 FILE 'WPIDS'  
SAMPLE SCREEN SEARCH COMPLETED - 14 TO ITERATE

100.0% PROCESSED 14 ITERATIONS 1 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 28 TO 252  
PROJECTED ANSWERS: 1 TO 40

L4 49 L3

=> s l4 and virus

L5 22 L4 AND VIRUS

=> s l5 and ("corona" or "toga")

L6 0 L5 AND ("CORONA" OR "TOGA")

=> s l5 and (coronavirus or togavirus)

L7 2 L5 AND (CORONAVIRUS OR TOGAVIRUS)

=> d l7 1-2 ibib, abs, hitstr

L7 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on SIN

ACCESSION NUMBER: 2005:904330 CAPLUS

DOCUMENT NUMBER: 143:222464

TITLE: Phospholipids for the treatment of infection by  
togaviruses, herpes viruses and coronaviruses  
INVENTOR(S): Fleming, Ronald A.; Hes, Jan V.; Huang, Yunsheng;  
Read, Russ H.; Morris-Natschke, Susan L.; Ishaq,  
Khalid S.; Kucera, Louis S.; Furman, Phillip A.

PATENT ASSIGNEE(S): Kucera Pharmaceutical Company, USA

SOURCE: U.S. Pat. Appl. Publ., 36 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050187192	A1	20050825	US 2004-783927	20040220
PRIORITY APPLN. INFO.:			US 2004-783927	20040220

OTHER SOURCE(S): MARPAT 143:222464

AB Provided are compds., methods and pharmaceutical compns. for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other antiviral agents. The EC50 of an alkylamido-2-alkoxypropylphosphocholine against varicella zoster virus was 0.48 µg/mL.

IT 252371-27-0 443882-90-4 443882-91-5

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

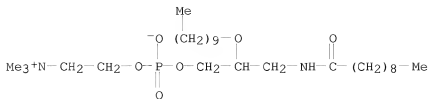
(Biological study); USES (Uses)

(phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)

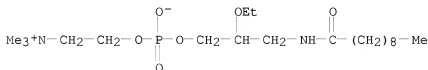
RN 252371-27-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)

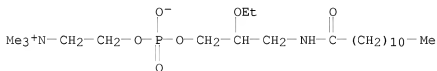




RN 443882-90-4 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
 INDEX NAME)



RN 443882-91-5 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
 INDEX NAME)



L7 ANSWER 2 OF 2 USPATFULL on STN  
 ACCESSION NUMBER: 2005:215516 USPATFULL  
 TITLE: Phospholipids for the treatment of infection by  
 togaviruses, herpes viruses and coronaviruses  
 INVENTOR(S): Fleming, Ronald A., Cary, NC, UNITED STATES  
 Hes, Jan V., Hurdle Mills, NC, UNITED STATES  
 Huang, Yunsheng, Apex, NC, UNITED STATES  
 Read, Russ H., Rural Hall, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 Kucera, Louis S., Pfaffown, NC, UNITED STATES  
 Furman, Phillip A., Durham, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Kucera Pharmaceutical Company (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20050187192	A1	20050825
APPLICATION INFO.:	US 2004-783927	A1	20040220 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Madeline I. Johnston, Esq., KING & SPALDING LLP, 45th Floor, 191 Peachtree Street, N.E., Atlanta, GA, 30303, US		
NUMBER OF CLAIMS:	65		
EXEMPLARY CLAIM:	1		

NUMBER OF DRAWINGS: 2 Drawing Page(s)

LINE COUNT: 2757

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

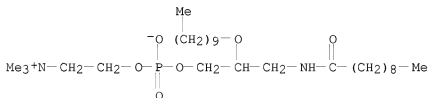
AB Provided are compounds, methods and pharmaceutical compositions for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other anti-viral agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 252371-27-0 443882-90-4 443882-91-5  
(phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)

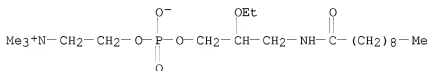
RN 252371-27-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



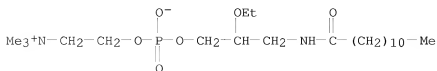
RN 443882-90-4 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



RN 443882-91-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



=> d 15 1-22 ibib, abs, hitstr

L5 ANSWER 1 OF 22 MEDLINE on STN  
ACCESSION NUMBER: 1991202492 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 2016713  
TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents.  
AUTHOR: Meyer K L; Marasco C J Jr; Morris-Natschke S L; Ishaq K S; Piantadosi C  
CORPORATE SOURCE: University of North Carolina, School of Pharmacy, Division of Medicinal Chemistry and Natural Products, Chapel Hill 27599.  
CONTRACT NUMBER: CA 12197 (United States NCI)  
CA 42216 (United States NCI)  
RR 05404 (United States NCRR)  
SOURCE: Journal of medicinal chemistry, (1991 Apr) Vol. 34, No. 4, pp. 1377-83.  
Journal code: 9716531. ISSN: 0022-2623.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: (COMPARATIVE STUDY)  
Journal; Article; (JOURNAL ARTICLE)  
(RESEARCH SUPPORT, NON-U.S. GOV'T)  
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; AIDS  
ENTRY MONTH: 199105  
ENTRY DATE: Entered STN: 7 Jun 1991  
Last Updated on STN: 3 Feb 1997  
Entered Medline: 21 May 1991

AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety was evaluated as potential anti-HIV-1 agents. Several analogues were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypropylphosphocholine (8). Compound 8 exhibited an IC50 for the inhibition of plaque formation of 0.16 microM which was 84-fold lower than the IC50 value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compounds, unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different mechanism, they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

L5 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:904330 CAPLUS  
DOCUMENT NUMBER: 143:222464  
TITLE: Phospholipids for the treatment of infection by togaviruses, herpes viruses and coronaviruses  
Fleming, Ronald A.; Hes, Jan V.; Huang, Yunsheng;  
Read, Russ H.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Kucera, Louis S.; Furman, Phillip A.  
INVENTOR(S): Kucera Pharmaceutical Company, USA  
PATENT ASSIGNEE(S): U.S. Pat. Appl. Publ., 36 pp.  
SOURCE: CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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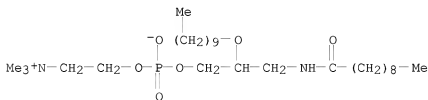
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US 20050187192	A1	20050825	US 2004-783927
PRIORITY APPLN. INFO.:			US 2004-783927
OTHER SOURCE(S):	MARPAT 143:222464		

AB Provided are compds., methods and pharmaceutical compns. for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other antiviral agents. The EC50 of an alkylamido-2-alkoxypropylphosphocholine against varicella zoster virus was 0.48 µg/mL.

IT 252371-27-0 443882-90-4 443882-91-5  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)

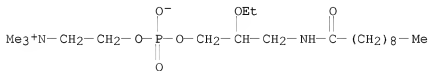
RN 252371-27-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



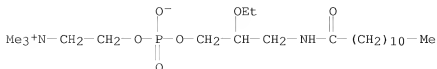
RN 443882-90-4 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 443882-91-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaneicosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

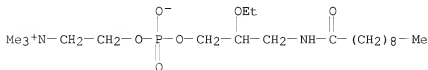


L5 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:902611 CAPLUS  
 DOCUMENT NUMBER: 143:241938  
 TITLE: Methods and compositions for the treatment of respiratory syncytial virus  
 INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Fleming, Ronald A.; Hess, Jan V.; Huang, Yunsheng; Read, Russ H.; Furman, Phillip A.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 29 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

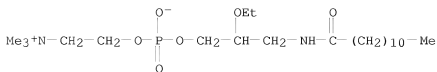
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050187191	A1	20050825	US 2004-781894	20040220
WO 2005099719	A2	20051027	WO 2005-US3972	20050209
WO 2005099719	A3	20070322		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

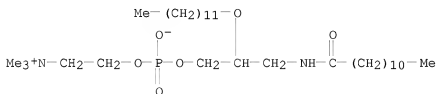
PRIORITY APPLN. INFO.: US 2004-781894 A 20040220  
 OTHER SOURCE(S): MARPAT 143:241938  
 AB The invention includes compds. useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.  
 IT 443882-90-4, KPC 11 443882-91-5, KPC 15  
 RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (comps. for treatment of respiratory syncytial virus)  
 RN 443882-90-4 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphanadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



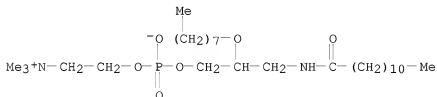
RN 443882-91-5 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphanadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



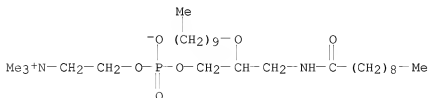
IT 207298-91-7 207298-93-9 252371-27-0  
 443882-96-0  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (comps. for treatment of respiratory syncytial virus)  
 RN 207298-91-7 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
 (9CI) (CA INDEX NAME)



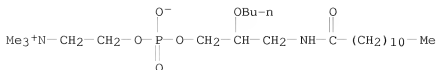
RN 207298-93-9 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



RN 252371-27-0 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



RN 443882-96-0 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
 INDEX NAME)



L5 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:435743 CAPLUS

DOCUMENT NUMBER: 129:90448

ORIGINAL REFERENCE NO.: 129:18491a,18494a

TITLE: Method of treating hepatitis virus infections

INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.

PATENT ASSIGNEE(S): Wake Forest University, USA; University of North Carolina

SOURCE: U.S., 17 pp., Cont.-in-part of U. S. Ser. No. 74,943, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5770584	A	19980623	US 1995-465947	19950606
US 6030960	A	20000229	US 1998-102308	19980622
PRIORITY APPLN. INFO.:			US 1993-74943	B2 19930610
			US 1995-465947	A3 19950606

OTHER SOURCE(S): MARPAT 129:90448

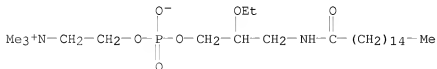
AB A method of treating hepatitis virus infection is disclosed. The method involves administering to a human subject in need of such treatment an effective hepatitis virus-combating amount of an alkyl lipid or alkyl lipid derivative

IT 112989-01-2P 112989-02-3P 209532-02-5P 209532-03-6P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(alkyl lipids for treating hepatitis virus infections)

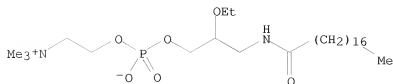
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

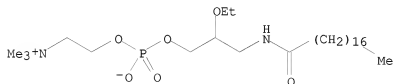
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 209532-02-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-  
(9CI) (CA INDEX NAME)

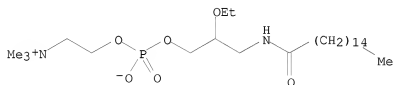
Rotation (+).



RN 209532-03-6 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-  
(9CI) (CA INDEX NAME)

Rotation (+).



REFERENCE COUNT: 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 1998:205430 CAPLUS

DOCUMENT NUMBER: 128:316940

ORIGINAL REFERENCE NO.: 128:62637a,62640a

TITLE: In vitro evaluation and characterization of newly  
designed alkylamidophospholipid analogs as anti-human  
immunodeficiency virus type 1 agents

AUTHOR(S): Kucera, L. S.; Iyer, N.; Morris-Natschke, S. L.; Chen,  
S. Y.; Gumus, F.; Ishaq, K.; Herrmann, D. B. J.

CORPORATE SOURCE: Wake Forest University School Medicine, Winston-Salem,  
NC, USA

SOURCE: Antiviral Chemistry & Chemotherapy (1998), 9(2),  
157-165

CODEN: ACCHEH; ISSN: 0956-3202

PUBLISHER: International Medical Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Our labs. first reported two novel classes of complex synthetic lipids,  
including alkylamidophosphocholines (PC lipid; CP-51) and  
alkylamidophosphate ester-linked lipid-AZT conjugates (lipid-AZT



conjugates; CP-92), with selective and potent activity against human immunodeficiency virus type 1 (HIV-1). To extend these observations, we synthesized addnl. PC lipids and lipid-AZT conjugates (INK and INK-AZT conjugate) to evaluate their structure-activity relationships by testing for selectivity against infectious wild-type (wt) and drug-resistant HIV-1 replication, virus fusogenic activity and toxicity replication, virus fusogenic activity and toxicity for mouse bone marrow cells. PC lipid compds. with medium chain lengths at positions 1 and 2 gave an improved selective index (SI). INK-3, with 12 and 8 carbons and INK-15, with 10 and 12 carbons were among the most selective when evaluated in CEM-SS cells. INK-14, a lipid-AZT conjugate where AZT replaced the choline in PC lipid INK-3, gave the highest SI of >1250 against both infectious wt HIV-1 replication in CEM-SS cells and a clin. isolate in peripheral blood leukocytes. Notably, the PC lipid compds. INK-3 and INK-15, but not the lipid-AZT conjugate INK-14, were potent inhibitors of matched pairs of AZT-sensitive and AZT-resistant HIV-1 clin. isolates. INK-3 also inhibited replication of HIV-2 and TIBO-resistant HIV-1, and inhibited HIV-1-mediated fusogenic activity by 78, 41 and 9% in a dose-dependent manner. The TC50 for mouse bone marrow cells was >100 µg/mL for CP-51 and 0.142-0.259 µg/mL for AZT. These data suggest that optimum PC lipid compds. are significantly less toxic than AZT and have high potential as novel therapeutic agents for AIDS.

IT 207298-91-7P 207298-92-8P 207298-93-9P

207298-94-0P 207298-95-1P 207298-97-3P

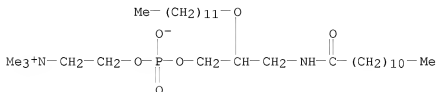
207298-99-5P

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(anti-HIV-1 activity and preparation of alkylamidophospholipid analogs)

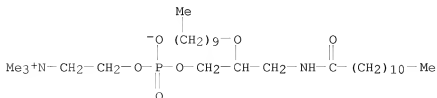
RN 207298-91-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



RN 207298-92-8 CAPLUS

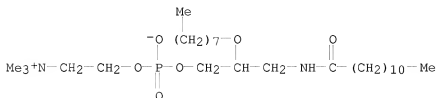
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



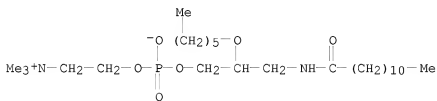
RN 207298-93-9 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,

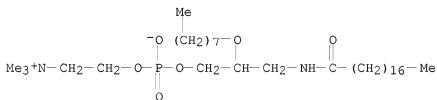
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



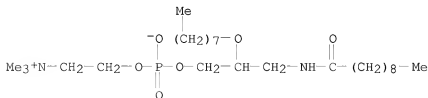
RN 207298-94-0 CAPLUS  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



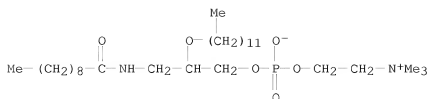
RN 207298-95-1 CAPLUS  
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



RN 207298-97-3 CAPLUS  
CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



RN 207298-99-5 CAPLUS  
CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



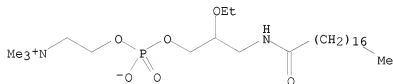
IT 112989-02-3, CP 51

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(anti-HIV-1 activity and preparation of alkylamidophospholipid analogs)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:388263 CAPLUS

DOCUMENT NUMBER: 125:49273

ORIGINAL REFERENCE NO.: 125:9233a,9236a

TITLE: Lipid analogs for treating viral infections

INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq, Khalid S.

PATENT ASSIGNEE(S): Wake Forest University, USA; Univ. of North Carolina at Chapel Hill

SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

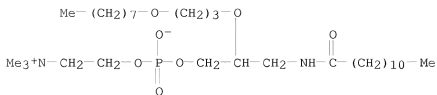
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

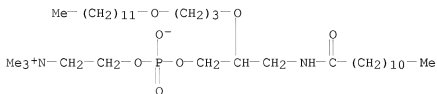
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9606620	A2	19960307	WO 1995-US10111	19950807
WO 9606620	A3	19960613		
W:	AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT			
RW:	KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
CA 2197319	A1	19960307	CA 1995-2197319	19950807
AU 9532166	A	19960322	AU 1995-32166	19950807





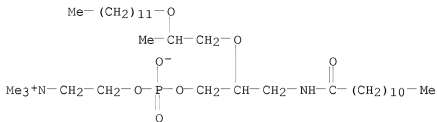
RN 178173-00-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 CAPLUS

CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L5 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:701769 CAPLUS

DOCUMENT NUMBER: 123:112632

ORIGINAL REFERENCE NO.: 123:20141a,20144a

TITLE: Phospholipids for combating hepatitis B virus infection

INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.

PATENT ASSIGNEE(S): Wake Forest University, USA; University of North Carolina

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

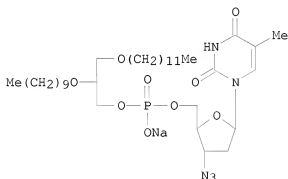
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9428908	A2	19941222	WO 1994-US5855	19940525

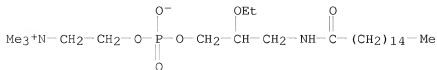
WO 9428908 A3 19950323  
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN  
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  
CA 2164717 A1 19941222 CA 1994-2164717 19940525  
AU 9470448 A 19950103 AU 1994-70448 19940525  
EP 702556 A1 19960327 EP 1994-919231 19940525  
EP 702556 B1 20021023  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE  
AT 226437 T 20021115 AT 1994-919231 19940525  
PRIORITY APPLN. INFO.: US 1993-74943 A 19930610  
US 1994-US5855 W 19940525  
OTHER SOURCE(S): MARPAT 123:112632  
GI



AB A method of treating infection with hepatitis B virus is disclosed. The method comprises administration of alkyl ether phospholipids and derivs. of formula DCH2XCH2YR1 [Y = S, O, NH, NMe, NHCO, NMeCO; R1 = (un)branched (un)saturated C10-20 alk(en/yn)yl; X = bond, CH2 (un)substituted by OH, alkyl, alkoxy, or alkylthio; D = (PO4)-E, N+R5R6FW Z-; E = (mono/di/trialkyl)ammonioalkyl or a nucleic acid base conjugate; F = alkylene; R5, R6 = H, alkyl; W = OH, SH; Z- = anion]. Several compds. were prepared. For example, etherification of isopropylidenediglycerol with 1-bromododecane using KOH in PhMe and acid hydrolysis with HCl in MeOH-Et2O mixture gave 71% 3-dodecyloxy-1,2-propanediol. This underwent 1-O-tritylation with Ph3CCl in pyridine, 2-O-alkylation by 1-bromododecane and NaH in THF (51%), and detritylation by p-MeC6H4SO3H in CHCl3-MeOH (63%) to give 3-dodecyloxy-2-decyloxy-1-propanol. The latter underwent esterification with (PhO)2P(O)Cl (60%), hydrogenolysis of the Ph ester to the phosphatidic acid, and reesterification with AZT using DCC (22%) to give title compound (Na salt) I. Another compound, (±)-3-octadecanamido-2-ethoxypropyl-1-phosphocholine, inhibited HBV virion DNA and intracellular RI HBV DNA in expts. to a comparable or greater extent than the standard agent ddC.

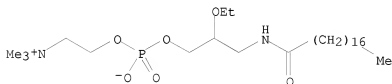
IT 112989-01-2P 112989-02-3P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of phospholipids for combating hepatitis B virus)  
RN 112989-01-2 CAPLUS  
CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-ammonium,

7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L5 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:694404 CAPLUS

DOCUMENT NUMBER: 123:160151

ORIGINAL REFERENCE NO.: 123:28207a,28210a

TITLE: Membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/ gp120 binding to monoclonal antibody

AUTHOR(S): Krugner-Higby, Lisa; Goff, David; Edwards, Terri; Iyer, Nathan; Neufeld, Jay; Kute, Timothy; Morris-Natschke, Susan; Ishaq, Khalid; Piantadosi, Claude; Kucera, Louis S.

CORPORATE SOURCE: Wake Forest University, Winsto-Salem, NC, 27157-1064, USA

SOURCE: AIDS Research and Human Retroviruses (1995), 11(6), 705-12

CODEN: ARHRE7; ISSN: 0889-2229

PUBLISHER: Liebert

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Membrane-interactive phospholipids (PLs), previously evaluated for activity against HIV-1 in vitro, are known to affect late steps in viral replication. Studies were done to determine the effects of PL analogs on post-translational processing of HIV-1 proteins, binding of viral surface gp160/gp120 to CD4 receptor, and HIV-1-induced cell fusion. Results of this investigation indicated that PL alone (1-octadecanamido-2-ethoxypropyl-rac-3-phosphocholine, CP-51) and PL-AZT conjugate (1-octadecanamido-2-ethoxypropyl-rac-3-phospho-3'-azido-3'-deoxythymidine, CP-92) have no effect on HIV-1-induced syntheses or processing of gp160/gp120, pr51, p24, or p17 (including myristoylation) in infected cells. Progeny HIV-1 particles made in CP-92-treated H9IIIB cells contained gp120, pr51, and p24; however, these virus particles had reduced capacity to bind to CD4+ cells. Both CP-51 and CP-92 inhibited syncytium (cell fusion) formation between treated HIV-1-infected cells and uninfected CD4+ cells, and, they reduced HIV-1 gp160/gp120 binding to CD4+ cells and monoclonal antibody. These results suggest that anti-HIV-1 activity of PL compds. involves alteration of cell

surface membranes and viral envelopes. Phospholipid compds. are a novel class of membrane interactive compds. with potential use in blocking the spread of HIV-1 infection and pathogenesis in AIDS.

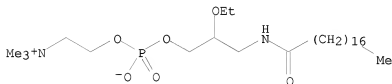
IT 112989-02-3, CP 51

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/ gp120 binding to monoclonal antibody)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L5 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:185901 CAPLUS

DOCUMENT NUMBER: 114:185901

ORIGINAL REFERENCE NO.: 114:31415a,31418a

TITLE: Synthesis and evaluation of novel ether lipid nucleoside conjugates for anti-HIV-1 activity

AUTHOR(S): Piantadosi, Claude; Marasco, Canio J., Jr.; Morris-Natschke, Susan L.; Meyer, Karen L.; Gumus, Fatma; Surles, Jefferson R.; Ishaq, Khalid S.; Kucera, Louis S.; Iyer, Nathan; et al.

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA

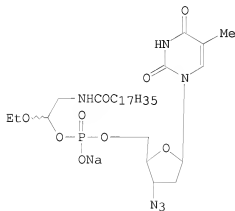
SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1408-14  
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 114:185901

GI





AB Combinations of an amidoalkylphosphocholine, C17H35CONHCH2CH(OEt)CH2OP(O)(O-)OCH2CH2N+Me3, and AZT were found to cause an apparent synergistic action in suppressing infectious HIV-1 replication. In addition, alkylamido, alkyloxy, and alkylthio ether lipids were chemical linked to anti-HIV-1 nucleosides (AZT and DDI) through phosphate and phosphonate linkages. These conjugates show promising in vitro anti-HIV-1 activity. Also, the conjugates have a 5-10-fold reduction in cell cytotoxicity compared to AZT alone. The most active compound, an alkylamido ether lipid-AZT conjugate, I was found to have a differential selectivity of 1793 in a syncytial plaque assay. In comparison, AZT alone has a value of 1281.

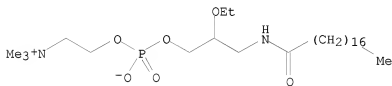
IT 112989-02-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(anti-HIV-1 activity of)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L5 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:185881 CAPLUS

DOCUMENT NUMBER: 114:185881

ORIGINAL REFERENCE NO.: 114:31411a,31414a

TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents

AUTHOR(S): Meyer, Karen L.; Marasco, Canino J., Jr.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Piantadosi, Claude; Kucera, Louis S.

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA

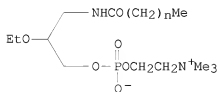
SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1377-83  
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 114:185881

GI



I

AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety were evaluated as potential anti-HIV-1 agents. Several analogs were identified as possessing activity with the most promising compound being

rac-3-octadecanamido-2-ethoxypropylphosphocholine (I). I exhibited an IC50 for the inhibition of plaque formation of 0.16  $\mu$ M which was 84-fold lower than the IC50 value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compds., unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different, mechanism they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

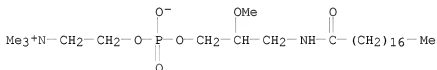
IT 88876-07-7 112989-00-1 112989-01-2  
112989-02-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(anti-HIV-1 activity of)

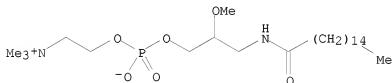
RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
INDEX NAME)



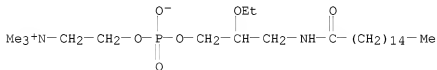
RN 112989-00-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



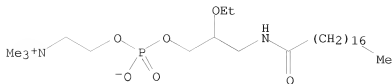
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX  
NAME)



RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX  
NAME)

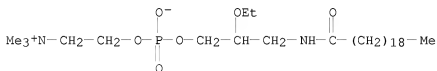


IT 149576-20-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and anti-HIV-1 activity of)

RN 149576-20-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
INDEX NAME)



L5 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:470710 CAPLUS

DOCUMENT NUMBER: 113:70710

ORIGINAL REFERENCE NO.: 113:11741a,11744a

TITLE: Novel membrane-interactive ether lipid analogs that  
inhibit infectious HIV-1 production and induce  
defective virus formation

AUTHOR(S): Kucera, Louis S.; Iyer, Nathan; Leake, Eva; Raben,  
Adam; Modest, Edward J.; Daniel, Larry W.; Piantadosi,  
Claude

CORPORATE SOURCE: Bowman Gray Sch. Med., Wake Forest Univ.,  
Winston-Salem, NC, 27103, USA

SOURCE: AIDS Research and Human Retroviruses (1990), 6(4),  
491-501

CODEN: ARHRE7; ISSN: 0889-2229

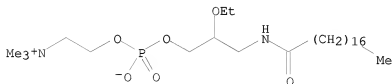
DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new class of membrane-active ether lipid (EL) analogs of  
platelet-activating factor were studied for in vitro anti-HIV-1 activity.  
Human T-cell (CEM-ss) monolayers or suspension cultures were used to determine  
effects of structural modifications of Type A phosphorus-containing and Type B  
nonphosphorus EL analogs on (a) the inhibitory concn.50 (IC50) for HIV-1  
syncytial plaque formation and cell growth, and, (b) virus  
budding at the cell plasma membrane. Results indicate that representative  
Type A and Type B EL inhibit HIV-1 but not herpes simplex virus  
type 2 plaque formation when added before or up to 2 days after viral  
infection. Anti-HIV-1 activity does not involve direct inactivation of  
virus infectivity. Type A EL (IC50 range = 0.2-1.4 µM) with  
alkoxy, alkylthio, or alkyamido substitution at glycerol position 1 and  
ethoxy or methoxy substitution at position 2, and Type B compds. (IC50  
range = 0.33-0.63 µM) with an inverse choline or nitrogen heterocyclic  
substitution at position 3 have selective activity against HIV-1-infected  
T-cells. EL treatment of HIV-1-infected cells is associated with subsequent  
release of reverse transcriptase activity, but infectious virus  
production is inhibited with time after infection. Electron microscopic  
examination of HIV-1-infected and EL-treated cells revealed absence of

detectable budding virus at the plasma membrane but presence of intracytoplasmic vacuolar virus particles. EL analogs are a novel class of agents that induce defective intracytoplasmic vacuolar HIV-1 formation in T-cells. Being membrane interactive, EL are ideally suited for combination chemotherapy with DNA-interactive anti-HIV nucleoside analogs.

IT 112989-02-3  
 RL: BIOL (Biological study)  
 (human immunodeficiency virus infection response to)  
 RN 112989-02-3 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L5 ANSWER 12 OF 22 USPATFULL on STN  
 ACCESSION NUMBER: 2007:121606 USPATFULL  
 TITLE: Lipid analogs for inhibiting HIV-1 activity  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

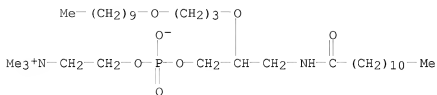
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070105812	A1	20070510
	US 7294620	B2	20071113
APPLICATION INFO.:	US 2006-588311	A1	20061027 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1-106		
LINE COUNT:	898		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 IT 178172-98-0 178172-99-1 178173-00-7  
 178173-01-8  
 (phospholipids for treating viral infections and tumors)

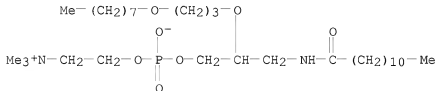
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



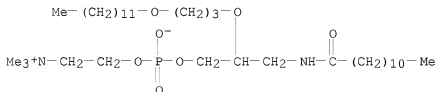
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



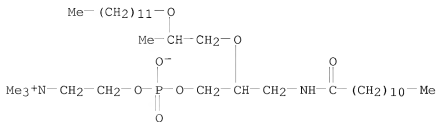
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L5 ANSWER 13 OF 22 USPATFULL ON STN  
ACCESSION NUMBER: 2007:121605 USPATFULL  
TITLE: Lipid analogs for inhibiting the activity of hepatitis  
B antigen  
INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)  
University of North Carolina at Chapel Hill (U.S.  
corporation)

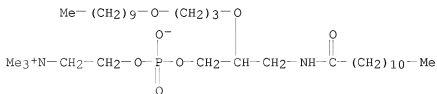
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

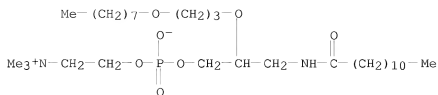
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7  
178173-01-8  
(phospholipids for treating viral infections and tumors)

RN	178172-98-0	USPATFULL
CN	3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)	(CA INDEX NAME)

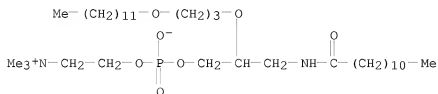


RN 178172-99-1 USPATFULL  
CN 3,5-Dioxo-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



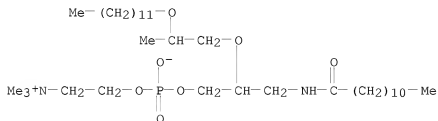
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L5 ANSWER 14 OF 22 USPATFULL on STN

ACCESSION NUMBER: 2007:114796 USPATFULL

TITLE: Lipid analogs for combating tumors

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070099870	A1	20070503
	US 7294621	B2	20071113
	US 2006-588313	A1	20061027 (11)
APPLICATION INFO.:	Division of Ser. No. US 2004-943923, filed on 20 Sep 2004, GRANTED, Pat. No. US 7141557 Continuation of Ser.		
RELATED APPLN. INFO.:	No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437		
	Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US		

1994-297416, filed on 29 Aug 1994, ABANDONED

DOCUMENT TYPE: Utility  
 FILE SEGMENT: APPLICATION  
 LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE  
 NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS: 19  
 EXEMPLARY CLAIM: 1-106  
 LINE COUNT: 900

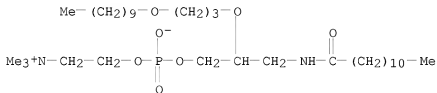
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

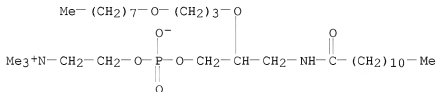
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7  
 178173-01-8

(phospholipids for treating viral infections and tumors)  
 RN 178172-98-0 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)

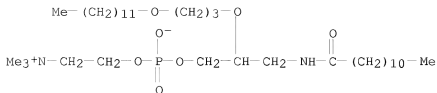


RN 178172-99-1 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)



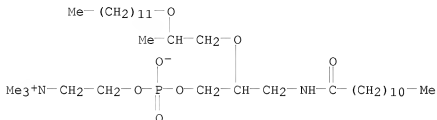
RN 178173-00-7 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)





RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)aminolpropoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L5 ANSWER 15 OF 22 USPATFULL on STN

ACCESSION NUMBER: 2006:284487 USPATFULL

TITLE: Lipid analogs for treating viral infections

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES

Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University, Winston Salem, NC, UNITED STATES (U.S. corporation)

University of North Carolina at Chapel Hill, Chapel Hill, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 7129227	B1	20061031
APPLICATION INFO.:	US 1999-412539		19991004 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 2003-793470, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Coleman, Brenda		
LEGAL REPRESENTATIVE:	Morgan Lewis & Bockius LLP		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1259		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpesviruses, is disclosed. The method comprises administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

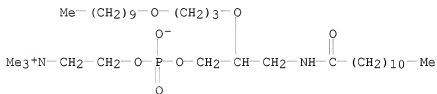
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

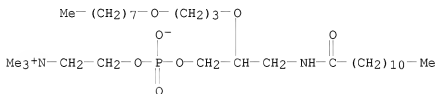
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



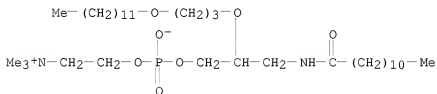
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



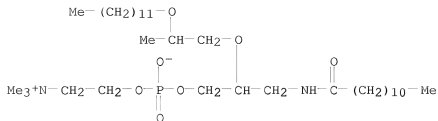
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L5 ANSWER 16 OF 22 USPATFULL on STN

ACCESSION NUMBER: 2005:215516 USPATFULL

TITLE: Phospholipids for the treatment of infection by  
togaviruses, herpes viruses and coronaviruses

INVENTOR(S): Fleming, Ronald A., Cary, NC, UNITED STATES  
Hes, Jan V., Hurdle Mills, NC, UNITED STATES  
Huang, Yunsheng, Apex, NC, UNITED STATES  
Read, Russ H., Rural Hall, NC, UNITED STATES  
Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
Kucera, Louis S., Pfaffown, NC, UNITED STATES  
Furman, Phillip A., Durham, NC, UNITED STATES

PATENT ASSIGNEE(S): Kucera Pharmaceutical Company (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20050187192	A1	20050825
APPLICATION INFO.:	US 2004-783927	A1	20040220 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Madeline I. Johnston, Esq., KING & SPALDING LLP, 45th Floor, 191 Peachtree Street, N.E., Atlanta, GA, 30303, US		
NUMBER OF CLAIMS:	65		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Page(s)		
LINE COUNT:	2757		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Provided are compounds, methods and pharmaceutical compositions for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other anti-viral agents.

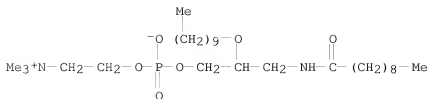
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 252371-27-0 443882-90-4 443882-91-5

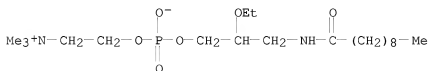
(phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)

RN 252371-27-0 USPATFULL

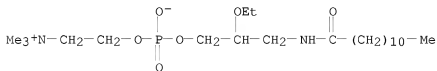
CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



RN 443882-90-4 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



RN 443882-91-5 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



L5 ANSWER 17 OF 22 USPATFULL on STN  
 ACCESSION NUMBER: 2005:215515 USPATFULL  
 TITLE: Methods and compositions for the treatment of  
 respiratory syncytial virus  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 Fleming, Ronald A., Cary, NC, UNITED STATES  
 Hess, Jan V., Hurdle Mills, NC, UNITED STATES  
 Huang, Yunsheng, Apex, NC, UNITED STATES  
 Read, Russ H., Rural Hall, NC, UNITED STATES  
 Furman, Phillip A., Durham, NC, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20050187191	A1	20050825
APPLICATION INFO.:	US 2004-781894	A1	20040220 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	39		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	2105		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes compounds useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

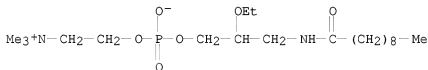
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 443882-90-4, KPC 11 443882-91-5, KPC 15

(comps. for treatment of respiratory syncytial virus)

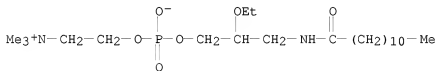
RN 443882-90-4 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



RN 443882-91-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



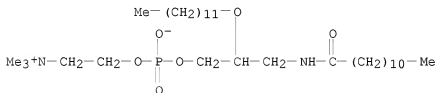
IT 207298-91-7 207298-93-9 252371-27-0

443882-96-0

(comps. for treatment of respiratory syncytial virus)

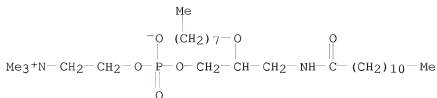
RN 207298-91-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



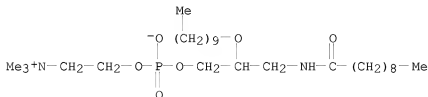
RN 207298-93-9 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



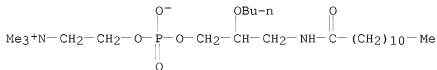
RN 252371-27-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



RN 443882-96-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



L5 ANSWER 18 OF 22 USPATFULL on STN

ACCESSION NUMBER: 2005:93372 USPATFULL

TITLE: Lipid analogs for treating viral infections

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES

Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, UNITED STATES (U.S. corporation)

University of North Carolina at Chapel Hill, Chapel Hill, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20050080050	A1	20050414
	US 7141557	B2	20061128
	US 2004-943923	A1	20040920 (10)
APPLICATION INFO.:	Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, PENDING Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995		
RELATED APPLN. INFO.:			
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		

LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE  
NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS: 34

EXEMPLARY CLAIM: 1-106

LINE COUNT: 960

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpes virus, is disclosed.  
The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

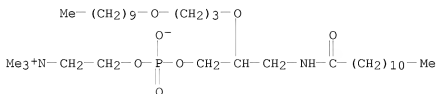
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

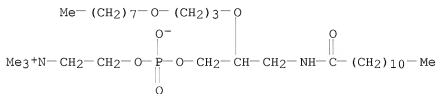
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



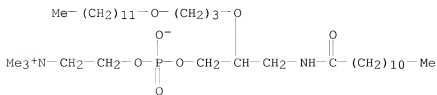
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



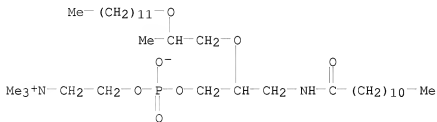
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L5 ANSWER 19 OF 22 USPATFULL on STN

ACCESSION NUMBER: 2004:328020 USPATFULL

TITLE: Lipid analogs for treating viral infections

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES

Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC (U.S.

corporation)

University of North Carolina at Chapel Hill, Chapel

Hill, NC (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20040259845	A1	20041223
	US 7135584	B2	20061114
APPLICATION INFO.:	US 2004-889127	A1	20040713 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, ABANDONED Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	CLM-1-106		
LINE COUNT:	903		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpes virus, is disclosed. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

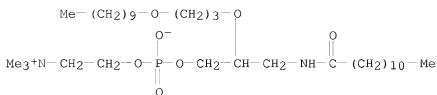
IT 178172-98-0 178172-99-1 178173-00-7  
178173-01-8

(phospholipids for treating viral infections and tumors)

RN 178172-98-0 USPATFULL

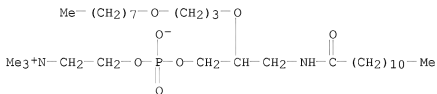
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)





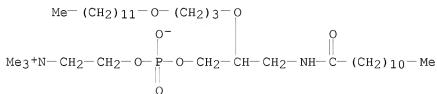
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



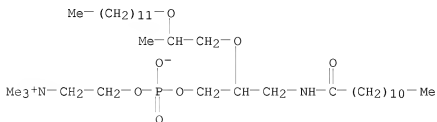
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner  
salt (CA INDEX NAME)



L5 ANSWER 20 OF 22 USPATFULL on STN

ACCESSION NUMBER: 2000:24634 USPATFULL

TITLE: Method of treating hepatitis virus infections

INVENTOR(S): Morris-Natschke, Susan L., Apex, NC, United States

Kucera, Louis S., Pfafftown, NC, United States

PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)  
University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

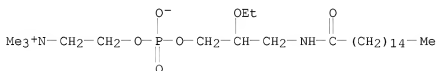
	NUMBER	KIND	DATE
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PATENT INFORMATION:	US 6030960		20000229
APPLICATION INFO.:	US 1998-102308		19980622 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-465947, filed on 6 Jun 1995, now patented, Pat. No. US 5770584 which is a continuation-in-part of Ser. No. US 1993-74943, filed on 10 Jun 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wilson, James O.		
LEGAL REPRESENTATIVE:	Akin, Gump, Strauss, Hauer & Feld, L.L.P.		
NUMBER OF CLAIMS:	44		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	1631		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

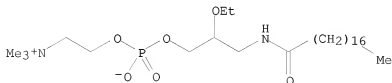
AB A method of treating hepatitis virus infection is disclosed.  
The method comprising administering to a human subject in need of such treatment an effective hepatitis virus-combatting amount of an alkyl lipid or alkyl lipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 112989-01-2P 112989-02-3P  
(preparation of phospholipids for combating hepatitis B virus)  
RN 112989-01-2 USPATFULL  
CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
INDEX NAME)



RN 112989-02-3 USPATFULL  
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
INDEX NAME)



L5 ANSWER 21 OF 22 USPATFULL on STN  
ACCESSION NUMBER: 1999:121339 USPATFULL  
TITLE: Lipid analogs for treating viral infections  
INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States

PATENT ASSIGNEE(S): Morris-Natschke, Susan L., Apex, NC, United States  
Ishaq, Khalid S., Chapel Hill, NC, United States  
Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5962437		19991005
	WO 9606620		19960307
APPLICATION INFO.:	US 1997-793470		19970502 (8)
	WO 1995-US10111		19950807
			19970502 PCT 371 date
			19970502 PCT 102(e) date
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, now abandoned which is a continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Raymond, Richard L.		
ASSISTANT EXAMINER:	Coleman, Brenda		
LEGAL REPRESENTATIVE:	Schwegman, Lundberg, Woessner & Kluth, P.A.		
NUMBER OF CLAIMS:	33		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1159		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	A method of treating viral infections, and in particular HIV-1, hepatitis B virus and herpes viruses, is disclosed. The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

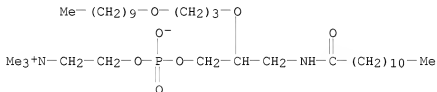
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

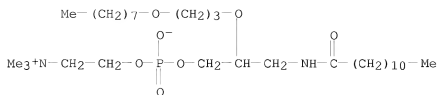
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



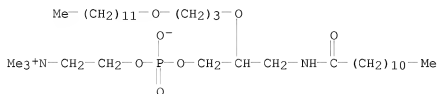
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



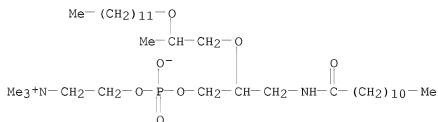
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L5 ANSWER 22 OF 22 USPATFULL on STN

ACCESSION NUMBER: 1998:72609 USPATFULL

TITLE: Method of treating hepatitis virus infections

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States

Morris-Natschke, Susan L., Apex, NC, United States

PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)

University of North Carolina, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5770584		19980623
APPLICATION INFO.:	US 1995-465947		19950606 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-74943, filed on 10 Jun 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wilson, James O.		
LEGAL REPRESENTATIVE:	Schwegman, Lundberg, Woessner & Kluth, P.A.		

NUMBER OF CLAIMS: 14  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)  
 LINE COUNT: 1527

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

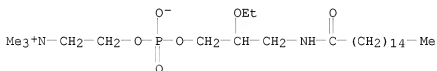
AB A method of treating hepatitis virus infection is disclosed.  
 The method comprising administering to a human subject in need of such treatment an effective hepatitis virus-combatting amount of an alkyl lipid or alkyl lipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 112989-01-2P 112989-02-3P 209532-02-5P  
 209532-03-6P

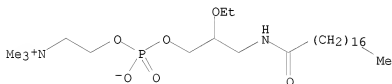
(alkyl lipids for treating hepatitis virus infections)  
 RN 112989-01-2 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
 INDEX NAME)



RN 112989-02-3 USPATFULL

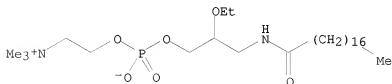
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
 INDEX NAME)



RN 209532-02-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-  
 (9CI) (CA INDEX NAME)

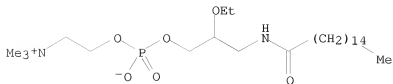
Rotation (+).



RN 209532-03-6 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-  
 (9CI) (CA INDEX NAME)

Rotation (+).



=> d his

(FILE 'HOME' ENTERED AT 11:26:09 ON 14 OCT 2008)

FILE 'REGISTRY' ENTERED AT 11:26:41 ON 14 OCT 2008

L1 STRUCTURE UPLOADED

L2 7 S L1

L3 70 S L2 FULL

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 11:28:13 ON 14 OCT 2008

L4 49 S L3

L5 22 S L4 AND VIRUS

L6 0 S L5 AND ("CORONA" OR "TOGA")

L7 2 S L5 AND (CORONAVIRUS OR TOGAVIRUS)

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	153.80	347.29
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-8.80	-8.80

STN INTERNATIONAL LOGOFF AT 11:30:41 ON 14 OCT 2008